

IN THE CLAIMS:

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

The pending claims have not been amended herein.

1. (PREVIOUSLY PRESENTED) A recording medium type discriminating apparatus, comprising:

a radio frequency (RF) amplifier to output a signal based on light reflected from a recording medium;

a wobble amplitude detector to detect only one amplitude of a wobble formed on the recording medium based on an output signal of the RF amplifier to discriminate a recording medium type of the recording medium; and

a system controller to discriminate the recording medium type of the recording medium by comparing the wobble amplitude with a pre-set wobble amplitude reference value.

2. (ORIGINAL) The apparatus of claim 1, wherein the RF amplifier detects a push-pull signal by determining an amount of the reflected light and provides the detected push-pull signal to the wobble amplitude detector.

3. (ORIGINAL) The apparatus of claim 2, wherein the wobble amplitude detector detects a peak-to-peak value of the output signal of the RF amplifier and identifies the detected peak-to-peak value as the wobble amplitude.

4. (ORIGINAL) The apparatus of claim 1, wherein the wobble amplitude detector detects a peak-to-peak value of the output signal of the RF amplifier and identifies the detected peak-to-peak value as the wobble amplitude.

5. (ORIGINAL) The apparatus of claim 1, wherein the system controller determines that the recording medium is a DVD(+) type recording medium when the wobble amplitude is higher than the reference value and that the recording medium is a DVD(-) type recording medium when the wobble amplitude is not higher than the reference value.

6. (PREVIOUSLY PRESENTED) A recording medium type discriminating apparatus,

comprising:

a radio frequency (RF) amplifier to output a signal based on light reflected from a recording medium;

a wobble amplitude detector to detect only one amplitude of a wobble formed on the recording medium based on an output signal of the RF amplifier to discriminate a recording medium type of the recording medium; and

a system controller to discriminate the recording medium type of the recording medium by comparing the wobble amplitude with a reference value, wherein the reference value is about 16 nm.

7. (PREVIOUSLY PRESENTED) A recording medium type discriminating apparatus, comprising:

a radio frequency (RF) amplifier to output a signal based on light reflected from a recording medium;

a wobble amplitude detector to detect only one amplitude of a wobble formed on the recording medium based on an output signal of the RF amplifier to discriminate a recording medium type of the recording medium; and

a system controller to discriminate a recording medium type of the recording medium by comparing the wobble amplitude with a reference value, wherein the reference value is less than 18 nm.

8. (PREVIOUSLY PRESENTED) A recording medium type discriminating apparatus, comprising:

a radio frequency (RF) amplifier to output a signal based on light reflected from a recording medium;

a wobble amplitude detector to detect only one amplitude of a wobble formed on the recording medium based on an output signal of the RF amplifier to discriminate a recording medium type of the recording medium; and

a system controller to discriminate a recording medium type of the recording medium by comparing the wobble amplitude with a reference value, wherein the reference value is greater than 14 nm.

9. (WITHDRAWN) A recording medium type discriminating apparatus, comprising:

a radio frequency (RF) amplifier to output a signal based on light reflected from the recording medium;

an automatic gain controller (AGC) to control an amplitude gain of the output signal of

the RF amplifier so that the output signal of the RF amplifier has a constant level; and

a system controller to discriminate a recording medium type of recording medium by comparing a gain value used in the AGC with a reference value.

10. (WITHDRAWN) The apparatus of claim 9, wherein the RF amplifier detects a push-pull signal by determining an amount of the reflected light and provides the detected push-pull signal to the AGC.

11. (WITHDRAWN) The apparatus of claim 9, wherein the system controller monitors the gain value of the AGC and determines that the recording medium is a DVD(-) type recording medium when the gain value is higher than the reference value and that the recording medium is a DVD(+) type recording medium when the wobble amplitude is not higher than the reference value.

12. (WITHDRAWN) The apparatus of claim 9, wherein the reference value is about 16 nm.

13. (WITHDRAWN) The apparatus of claim 9, wherein the reference value is less than 18 nm.

14. (WITHDRAWN) The apparatus of claim 9, wherein the reference value is greater than 14 nm.

15. (PREVIOUSLY PRESENTED) A recording medium type discriminating method, comprising:

detecting only one amplitude of a wobble formed on a recording medium using light reflected from the recording medium to discriminate a recording medium type of the recording medium; and

discriminating the recording medium type of the recording medium by comparing the detected wobble amplitude with a pre-set wobble amplitude reference value.

16. (ORIGINAL) The method of claim 15, wherein the discrimination of the recording medium type of the recording medium includes determining that the recording medium is a DVD(+) type recording medium when the amplitude of the wobble is higher than the reference value and that the recording medium is a DVD(-) type recording medium when the amplitude of the wobble is not higher than the reference value.

17. (ORIGINAL) The method of claim 16, wherein the detection of the amplitude of the wobble includes detecting a peak-to-peak value of a detected RF (radio frequency) signal, corresponding to an amount of light reflected from the recording medium, and identifying the amplitude of the wobble as being the peak-to-peak value.

18. (ORIGINAL) The method of claim 15, wherein the detection of the amplitude of the wobble includes detecting a peak-to-peak value of a detected radio frequency (RF) signal, corresponding to an amount of light reflected from the recording medium, and identifying the amplitude of the wobble as being the peak-to-peak value.

19-21. (CANCELED)

22. (WITHDRAWN) A recording medium type discriminating method, comprising :
automatically controlling an amplitude gain value of a radio frequency (RF) signal detected using light reflected from a recording medium so that an amplitude of the RF signal can have a constant level; and
discriminating a recording medium type of the recording medium by comparing the amplitude gain value with a reference value.

23. (WITHDRAWN) The method of claim 22, wherein the discrimination of the recording medium type of the recording medium includes monitoring the amplitude gain value and determining that the recording medium is a DVD(-) type recording medium when the gain value is higher than the reference value and that the recording medium is a DVD(+) type recording medium when the wobble amplitude is not higher than the reference value.

24. (WITHDRAWN) The method of claim 22, wherein the reference value is about 16 nm.

25. (WITHDRAWN) The method of claim 22, wherein the reference value is less than 18 nm.

26. (WITHDRAWN) The method of claim 22, wherein the reference value is greater than 14 nm.

27. (PREVIOUSLY PRESENTED) A storage medium comprising computer readable code to control a computer to perform a recording medium type discrimination method, the

method:

detecting only one amplitude of a wobble formed on a recording medium using light reflected from the recording medium to discriminate a recording medium type of the recording medium; and

discriminating the recording medium type of the recording medium by comparing the detected wobble amplitude with a pre-set wobble amplitude reference value.

28. (ORIGINAL) The medium of claim 27, wherein the discrimination of the recording medium type of the recording medium includes determining that the recording medium is a DVD(+) type recording medium when the amplitude of the wobble is higher than the reference value and that the recording medium is a DVD(-) type recording medium when the amplitude of the wobble is not higher than the reference value.

29. (ORIGINAL) The medium of claim 28, wherein the detection of the amplitude of the wobble includes detecting a peak-to-peak value of a detected RF (radio frequency) signal, corresponding to an amount of light reflected from the recording medium, and identifying the amplitude of the wobble as being the peak-to-peak value.

30. (ORIGINAL) The medium of claim 27, wherein the detection of the amplitude of the wobble includes detecting a peak-to-peak value of a detected radio frequency (RF) signal, corresponding to an amount of light reflected from the recording medium, and identifying the amplitude of the wobble as being the peak-to-peak value.

31. (PREVIOUSLY PRESENTED) The medium of claim 27, wherein the pre-set wobble amplitude reference value is about 16 nm.

32. (PREVIOUSLY PRESENTED) The medium of claim 27, wherein the pre-set wobble amplitude reference value is less than 18 nm.

33. (PREVIOUSLY PRESENTED) The medium of claim 27, wherein the pre-set wobble amplitude reference value is greater than 14 nm.

34. (WITHDRAWN- PREVIOUSLY PRESENTED) A storage medium comprising computer readable code to control a computer to perform a recording medium type discrimination method, the method comprising:

automatically controlling an amplitude gain value of a radio frequency (RF) signal

detected using light reflected from a recording medium so that the amplitude of the RF signal can have a constant level; and

discriminating a recording medium type of the recording medium by comparing the amplitude gain value with a pre-set wobble amplitude reference value.

35. (WITHDRAWN) The medium of claim 34, wherein the discrimination of the recording medium type of the recording medium includes monitoring the amplitude gain value and determining that the recording medium is a DVD(-) type recording medium when the gain value is higher than the reference value and that the recording medium is a DVD(+) type recording medium when the wobble amplitude is not higher than the reference value.

36. (WITHDRAWN- PREVIOUSLY PRESENTED) The medium of claim 34, wherein the pre-set wobble amplitude reference value is about 16 nm.

37. (WITHDRAWN- PREVIOUSLY PRESENTED) The medium of claim 34, wherein the pre-set wobble amplitude reference value is less than 18 nm.

38. (WITHDRAWN- PREVIOUSLY PRESENTED) The medium of claim 34, wherein the pre-set wobble amplitude reference value is greater than 14 nm.

39. (PREVIOUSLY PRESENTED) The apparatus of claim 1, wherein the pre-set wobble amplitude reference value is about 16 nm.

40. (PREVIOUSLY PRESENTED) The apparatus of claim 1, wherein the pre-set wobble amplitude reference value is less than 18 nm.

41. (PREVIOUSLY PRESENTED) The apparatus of claim 1, wherein the pre-set wobble amplitude reference value is greater than 14 nm.

42. (PREVIOUSLY PRESENTED) The method of claim 15, wherein the pre-set wobble amplitude reference value is about 16 nm.

43. (PREVIOUSLY PRESENTED) The method of claim 15, wherein the pre-set wobble amplitude reference value is less than 18 nm.

44 (PREVIOUSLY PRESENTED) The method of claim 15, wherein the pre-set

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wobble amplitude reference value is greater than 14 nm.